

GBP-1 1 MASEIHMTCGPMCLIENTNGRLMANPEALKILSAITQPMVVVAIVGLYRTG
 GBP-2 1 MAPEIINLPGPMSLIDNTKGQLVNVPEALKILSAITQPVVVVAIVGLYRTG
 GBP-4 1 MALEIHMSDPMCLIENTFNEQLKVNQEALFELSAITQPVVVVAIVGLYRTG

 GBP-1 51 KSYLMNKLAKKKKGFSLGSTVQSHTKGIWMWCVPHPKKP~~GH~~ILVLLDTEG
 GBP-2 51 KSYLMNKLAKKKNGFSLGSTVKSHTKGIWMWCVPHPKKPEHTLVLLDTEG
 GBP-4 51 KSYLMNKLAKKNKGFSVASTVQSHTKGIW~~I~~WCVPH~~NW~~PNHTLVLLDTEG

 GBP-1 101 LGDVEKGDNDND~~SWIFALAV~~LLSSTFVYNSIGTINQQAMDQLYYVTELTH
 GBP-2 101 LGDTEKGDNDND~~SWIFALAI~~LLSSTFVYNSMGTINQQAMDQLHYVTELTD
 GBP-4 101 LGDVEKADNKND~~IQIFALAI~~LLSSTFVYNTV~~NKIDQGAID~~LLHN~~V~~TELTD

 GBP-1 151 RIRSKSSPDENENEVEDSAD~~FVSFFPDFVWTLRDFS~~SLDLEADGQPLTPDE
 GBP-2 151 RIKANSSPG--NNSVD~~DSADFVSFFPAFVWTLRDF~~TELEVDGEPI~~TADD~~
 GBP-4 151 LLKARNSPD--LDRVEDPAD~~SA~~SFFPD~~L~~VWTLRDFC~~L~~GLEIDGQLVTPDE

 GBP-1 201 YLTYS~~LK~~LKKGTSQKDET~~FNLPRLCIRKFFPKKKCFVFD~~RPVHRRKLAQL
 GBP-2 199 YLE~~L~~SLKL~~R~~KGTD~~KK~~SKSFND~~PRLCIRKFFPK~~RKCFVFDWPAPK~~Y~~LAHL
 GBP-4 199 YLENSLRPKQGS~~D~~QRVQNFNLPRLCIQKFFPKKKCF~~TFD~~LPAHQKKLAQL

 GBP-1 251 EKLQDEELDPEFVQQVAD~~FCSYIFSN~~SKTKTLSGGIQVNGPRLESVLTY
 GBP-2 249 EQLKEEELNPD~~FIEQVAEFCSYI~~LSHSNVKTLSGGIAVNGPRLESVLTY
 GBP-4 249 ETLPDDELEPEFVQQVTEFCSYIFSHSMTKTL~~P~~GGIMVNGSRLKNLVLTY

 GBP-1 301 VNAISSGDLPCMENAVLALAQIENSAAVQKAI~~AHYEQQMGQKVQLPTE~~SL
 GBP-2 299 VNAISSGDLPCMENAVLALAQIENSAAV~~E~~KAI~~AHYEQQMGQKVQLPTETL~~
 GBP-4 299 VNAISSGDLPCI~~T~~ENAVLALAQRENSAAVQKAI~~AHYDQQMGQKVQLP~~METL

 GBP-1 351 QELLDLHRDSEREAIEVFIRSSFKDVDH~~L~~FQKELAAQLEK~~KRDDDFCKQNQ~~
 GBP-2 349 QELLDLHRDSEREAIEVFMKNSFKDVDQMFQ~~RKLGAQLEARRDDDFCKONS~~
 GBP-4 349 QELLDLHRTS~~EREAIEVFMKNSFKDVDQSFQKELETLLDAKOND~~ICKRNL

 GBP-1 401 EASSDRCSGLLQVIFSPLEEEVKA~~GIYSKPGGYRLFVQKLQDLKKKYYE~~E
 GBP-2 399 KASSDCCMALLQDIFGPLEEDVKQGT~~F~~SKPGGYRLFTQKLQELKNKY~~YQV~~
 GBP-4 399 EASSDYCSALLK~~D~~IFGPLEEA~~V~~KQGIYSKPGGHNLFIQKTEELKAKY~~YRE~~

 GBP-1 451 PRKGIQAEELILOTYLSKESMTDAILOTDQTLTEKEKEIEVERVKAESAQ
 GBP-2 449 PRKGIQAK~~EV~~LK~~K~~YLE~~S~~KEDVADALLQTDQSLSEKEKAIEVER~~I~~KAESA~~E~~
 GBP-3 1 -----ECVKAESAQ
 GBP-4 449 PRKGIQAE~~EV~~LQKYLKSKESVSHAILQTDQALTE~~T~~EKKKKEAQVKA~~E~~AEK

 GBP-1 501 ASAKMLQEMQRKNEQMMEQKERSYQEH~~L~~KQLTEKMENDRVQLLKEQERTL
 GBP-2 499 AAKMLEEIQK~~K~~NE~~E~~MMEQKEKSYQEHVKQLTEKMERDRAQLMAEQEK~~TL~~
 GBP-3 10 ASAKMVEEQIKYQ~~Q~~MMEEKEKSYQEHVKQLTEKMENDRVQLLKEQERTL
 GBP-4 499 AEAQRLAAIQ~~R~~ONEQMMQERERLHQEQVRQMEIAKQNWLAEQQKMQEQM

 GBP-1 551 ALKLQEQEQLLKEGFQKESRIMKNEIQDLQTKMRRRKA-CTIS
 GBP-2 549 ALKLQEQERLLKEGFENESKRLQKD~~I~~WDIQMRSKSLEPI~~CN~~IL
 GBP-3 60 ALKLQ-----****
 GBP-4 549 QVFINC~~F~~ISP~~L~~PVTMRVCSSGKEGEAARSCGSQQGVWSQKVWV

 * * * * *

FIG. 2

mouse.purine.nuc.BP	1	-----MEAPICLVENWKNQLTVNLEAIRILEQIAQPLVVVAIVGL
mu.GBP1	1	--MASEI--HMSEPMLIENTEAQLVINQEAIRILSAITQPVVVVAIVGL
rat.GBP.p67	1	MDMASEI--HMLQPMCLIENTEAHLVINQEAIRILSAINQPVVVVAIVGL
pig.GBP-1.partial	1	--NFHGIWSTTMDPIXLVKNQNNHLLTVNPKALKILGEICOPVVVVITAGL
pig.GBP-1.NH2.term.	1	--MASKV--HMPEPOCLIENINGRLAVNPKALKILSAIKOPTVVVAIVGL
chicken.GBP	1	--MDTPV-LMPAPLRRLVTNKDGVLAALNTAALAVLRSVTOPVVVVAIAGP
GBP-4	1	--MALEI--HMSDPMCLIENFNEQLKVNQEALEILSAITQPVVVVAIVGL
mouse.purine.nuc.BP	41	YRTGKSYLMNRLAGRNHGFSLGSTVQSETKGIWMWCVPHPTKPTHTLVLL
mu.GBP1	47	YRTGKSYLMNKLAKGRTGFSLGSTVQSHTKGIWMWCVPHPKKAGOTLVLL
rat.GBP.p67	49	YRTGKSYLMNKLAKGRTGFSLGSTVQSHTKGIWMWCVPHPKKAGOTLVLL
pig.GBP-1.partial	49	YRTGKSYLMNRLAGQNHGFRLGSTVRSETKGIWMWCVPHPKKXDHITLVLL
pig.GBP-1.NH2.term.	47	YRTGKSYLMNKLAKKNGK-----
chicken.GBP	48	YRTGKSFLMNRLAQKRTGFPLGPTVYAETKGIWMWCLPHPRQPRVTLVLL
GBP-4	47	YRTGKSYLMNKLAKGKNGFSVASTVQSHTKGIWITWCVPHPNWPNHTLVLL
mouse.purine.nuc.BP	91	DTEGLGDVEKGDPKNDSSWIFALAVLLSSTFVYNSMSTINQOALEQLHFVT
mu.GBP1	97	DTEGLEDDVEKGDNDNDWIFALAVLLSSTFYNSIGTINQOAMDQLHYVT
rat.GBP.p67	99	DTEGLEDDVEKGDNDNDWIFALAVLLSSTFVYNSMGITINQOAMDQLHYVT
pig.GBP-1.partial	99	GT-----
chicken.GBP	96	DTEGLEDDPKNDNDHSDAWIFLALLSSTLVYNSVGTIDQALSL---SC
GBP-4	97	DTEGLGDVEKADNKNDIQIFALALLSSTFVYNTVNKIDQGAIDLHNVT
mouse.purine.nuc.BP	141	ELTQLIRAKSSPREDKVKDSSEFVGFFPDFLWAVRDFALELKLNGRPITE
mu.GBP1	147	ELTDLIKSKSSPDQSDVDNSANFVGFFPIFVWTLRDFSLLDFDGESITP
rat.GBP.p67	149	ELTDLIKSKSSPDQSGIDDSANFVGFFPTFVWALRDFSLELEVNGKLVTP
chicken.GBP	144	AGNGAVRAHPRGEKDN-NPASNFVSIFPGFVWTVRDFTLQLRDGEKTLSE
GBP-4	147	ELTDLLKARNSPDLDRVEDPADSASFPPDLVWTLRDFCLGLEIDGQLVTP
mouse.purine.nuc.BP	191	DEYLENALKLIQGDNLKVOQSNMTRECI RYFFPVKRCFVFD RPTSDKRL
mu.GBP1	197	DEYLETSLALRKGT DENTKKFNMPRLCIRKFFPKRKCFI FDRPGDRKQ-L
rat.GBP.p67	199	DEYLEHSLITLKKGADKKT SFNEPRLCIRKFFPKRKCFI FDRPALRKQ-L
chicken.GBP	193	DEYLEDVLRIRPGAGRRQERNELRR-CLPNFFPRRKLF TMERPAADAN-L
GBP-4	197	DEYLENSLRPKQSGDQRVQNFNLPRLCIQKFFPKRKCFI FDLPAHQKK-L
mouse.purine.nuc.BP	241	LQIENVPENQERNFQVESEKFC SYIFTNGKTKTLRGGVIVITGNRLGTLV
mu.GBP1	246	SKLEWIQEDQLNKEFVEQVAEFTSYIFSYSGVKTLSSGGITVNGPRLKSLV
rat.GBP.p67	248	CKLETTLGEEELCSEFVEQVAEFTSYIFSYSAVKTLSSGGIIVNGPRLKSLV
chicken.GBP	241	TRLEELREDELQPGFRKQVDAFCRYIWEAPVKVLPGGHQVITGSALAYLV
GBP-4	246	AQLETLPDDELPEFVEQVTEFC SYIFSHSMTKTLPGGIMVNGSRLKNLV
mouse.purine.nuc.BP	291	QTYVNAIINSGTVPCLEN AVITTLAQRENSIAVOKAADHYSEOM AQRMRLPT
mu.GBP1	296	QTYVSAICSGELPCMENA VLTTLAQIENSAAVOKAITYYEEQMNQKIHMPT
rat.GBP.p67	298	QTYVGAISSGSLPCMESA VLTTLAQIENSAAVOKAITHYEEQMNQKIQMPT
chicken.GBP	291	EKYMAAISSGSVPCVEST LKALAQAEHTAAVQMAVAEYQRMEOGLVLPT
GBP-4	296	LTYVNAISSGDLPCIENA VLLALAQRENSAAVOKAIAHYDOQMCKVQLPM
mouse.purine.nuc.BP	341	DTLQELLTVHAACEKEAIAV FMEHSFKDDEQEFQKKLVVTIEERKEEFIR
mu.GBP1	346	ETLQELLDLHRTCEREAEI EVMKNSFKDVDQKFQEELEGAQLEAKRDAFVK
rat.GBP.p67	348	ETLQELLDLHRLIEREAIEI FLKNSFKDVDQKFQETELGNLLISKRDAFIK
chicken.GBP	341	ASYDALLAVHRDCEORAL ALFLSRAFAADHKHOYHDELVHKLEGQRGVLP
GBP-4	346	ETLQELLDLHRTSREAEI EVMKNSFKDVDQSFQKELETLLDAKQNDICK
mouse.purine.nuc.BP	391	QNEAASIRHCQAELERLSESLRKSISCGAFSVPGGHSLYLEARKKIELGY
mu.GBP1	396	KNMDMSSAHCSDLLEGLFAH LEEVKGTFYKPGGYLFLQRKQELEKKY
rat.GBP.p67	398	KNSDVSSAHCSDLIEDIFG PLLEEVKGTFYSKPGGYFLFLQMRQELEKKY
chicken.GBP	391	QGGVGAAVPHGAAGAVEGR -GRRLQRGDYVARGGAAQLFKEDVNRVLEEY
GBP-4	396	RNLEASSDYCSALLKDFFGP LEEAVKGGIYSKPGGHNLFIQKTEELKAKY

FIG. 3A

mouse.purine.nuc.BP	441	QQVLRKGLKAKEVLKSFLOSQAIMEDSILQSDKALTDGERAIAAERTKKE
mu.GBP1	446	IQTPGKGLQAEVMLRKYFESKEDLADTLKMDQSLTEKEKQIEMERIKAE
rat.GBP.p67	448	NOAPGKGLEAEAVLKKYFESKEDIVETLLKTDQSLTEAAKEIEVERIKAE
pig.GBP-1.partial	101	-----PRG-----
chicken.GBP	440	KQRPDKGVRAEAVLKEFLREHEGLAQVLKATEVOLELAERQOEAAAAEAE
GBP-4	446	YREPRKGIQAEVLOKYLKSKESVSHAILQTDQALTETEKKKKKEAQVKAE
mouse.purine.nuc.BP	491	VAEKELELLRQROKEQEQVMEAQERSFRENIAKLQEKMES---EKEMLLR
mu.GBP1	496	AAEAANRALAEMOKKHEMLMEQKEQSYQEHMKQLTEKMEQ---ERKELMA
rat.GBP.p67	498	TAEAAANRELAEKQEKFLMMQOKEESYQEHVROLTEKMKE---EQKKLIE
chicken.GBP	490	AARKATEAWREDQK-----RSMEEHKRQLEQWMKK---EKHTWEE
GBP-4	496	AEKAEAQRLAAIQRONEQMMQERERLHQEQVQRQMEIAKQNWLAEEQQKMQE
mouse.purine.nuc.BP	538	EQEKMLEHKLKVQEELLIEGFREKSDMLKNETSHLREEMERTRRKPSLFG
mu.GBP1	543	EQQRIISLKLQEQERILLKQGFQNESLQLRQETIEKIK-NMPPPRS-----
rat.GBP.p67	545	EQDNIIALKLREQEKFLREGYENESKKLLREIENMK-RRQSPGK-----
chicken.GBP	527	ELNRMLEHHRKEYKALLQEGFRREAAAKEKQIRELQEEMRSCN-----
GBP-4	546	QQMQVFINCFISPLPVTMRVCSGKEGEAARSCGSQ-QGVWSQK-----
mouse.purine.nuc.BP	588	QILDTIGNAFIMILPGAGKLFGVGLKFLGSLSS
mu.GBP1	586	-----CTIL-----
rat.GBP.p67	588	-----CTIL-----
chicken.GBP	570	-----CTVL-----
GBP-4	589	-----VWV-----

FIG. 3B

hGBP-4						
67	hGBP-1					
64	76	hGBP-2				
60	68	71	rGBP			
59	70	71	80	mGBP-1		
49	54	54	52	53	mPNBP	
37	41	41	41	39	41	cGBP

FIG. 4

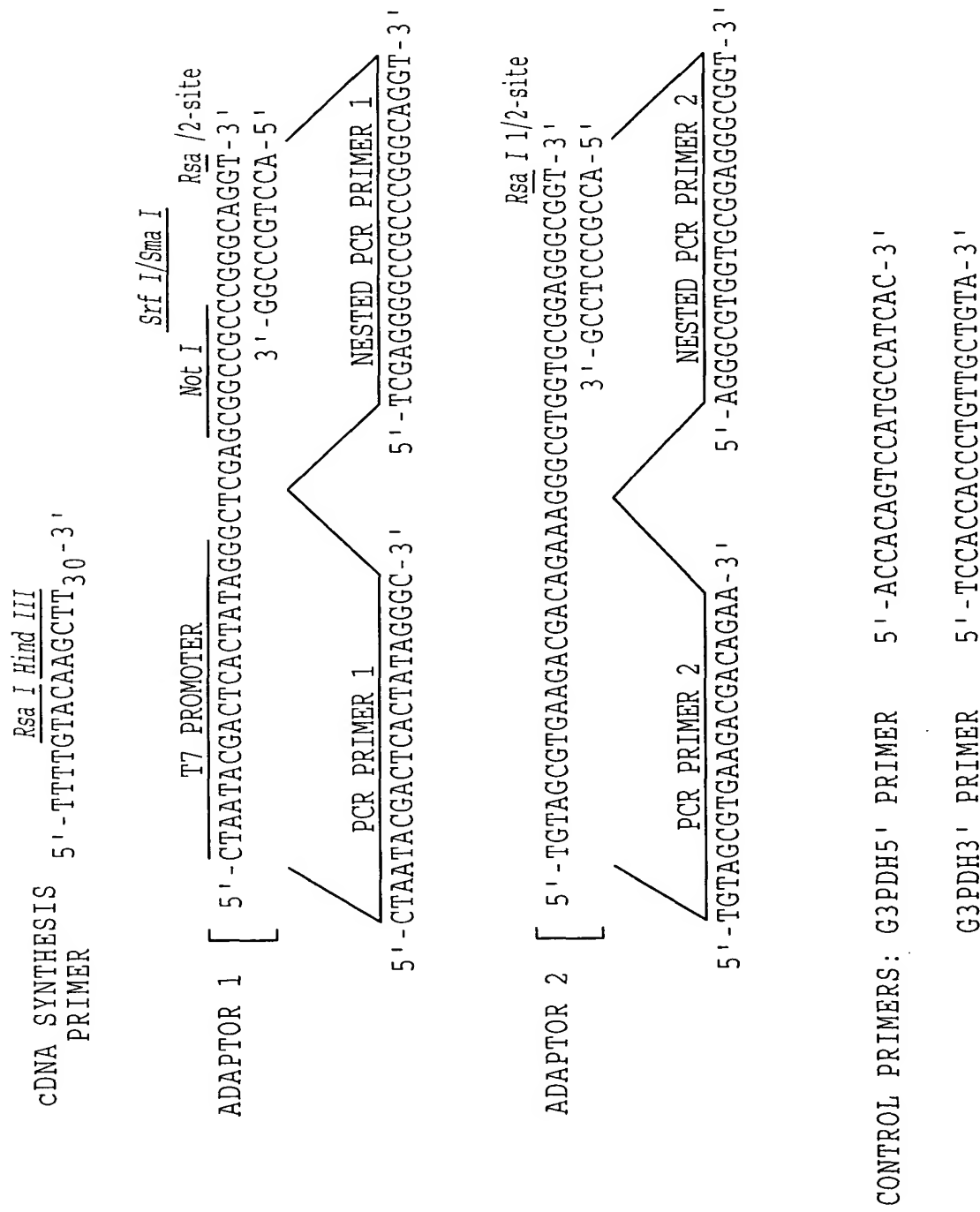


FIG. 5

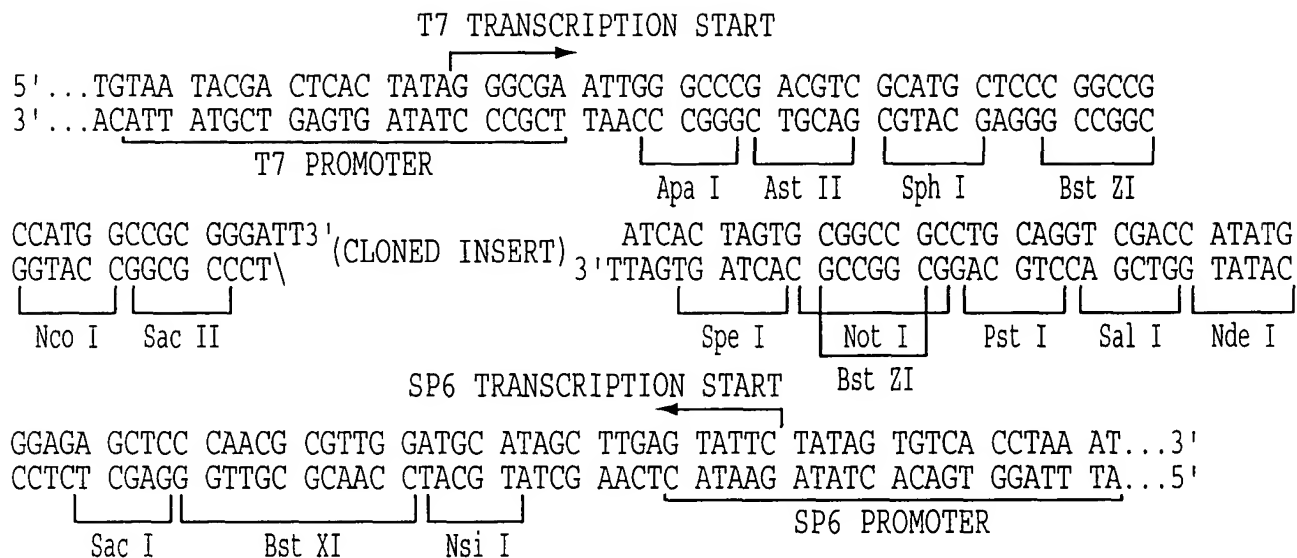


FIG. 6

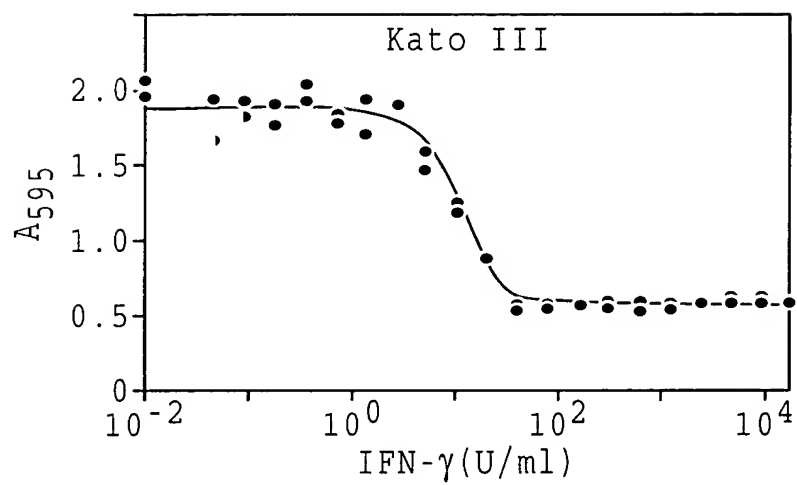


FIG. 7A

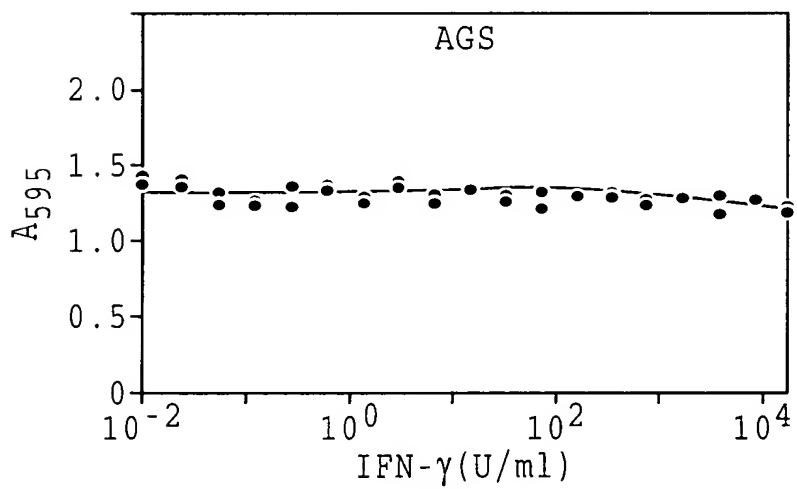


FIG. 7B

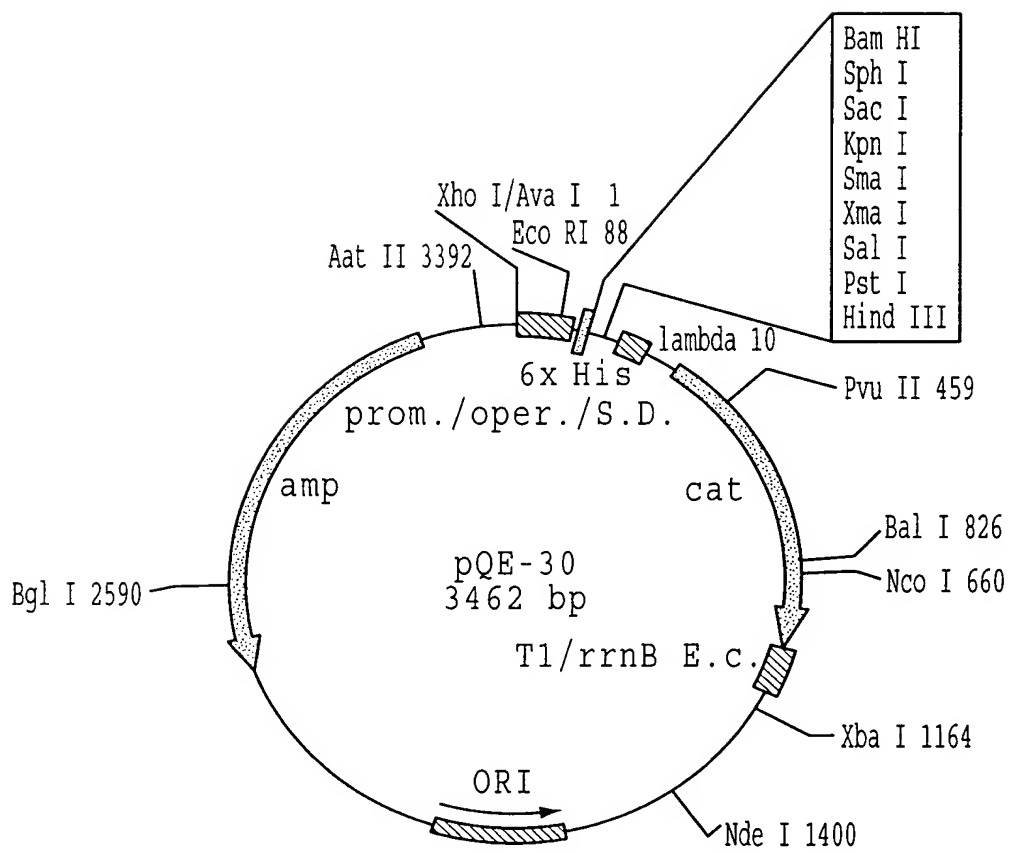


FIG. 8